



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

11A

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,460	04/20/2004	Paul J. Garnett	5681-03702	3996

7590 08/09/2006

B. Noel Kivlin
Meyertons, Hood, Kivlin,
Kowert & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767

EXAMINER

BUI, HUNG S

ART UNIT PAPER NUMBER

2841

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/828,460

Applicant(s)

GARNETT ET AL.

Examiner

Hung S. Bui

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 72-74, 77, 79 and 82-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 72-74, 77, 79 and 82-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/27/2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 72-74, 77, 79, 82-96 and 98-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hipp [US 6,985,967] in view of Collins et al. [US 5,222,897] and Gallagher et al. [US 5,971,804].

Regarding claims 72, 90, 95, 98 and 100, Hipp et al. disclose a system (figure 1) having a carrier enclosure (figures 10-12), wherein the carrier enclosure has at least one storage sever blade (135) receiving location (figure 1) and a power supply (280) and a switch module (40); a midplane (34) comprised in the carrier enclosure, wherein the midplane comprises a midplane front face and a midplane rear face (figure 1); wherein the midplane rear face is operable to abut the at least one power supply (280, figure 1); wherein the midplane front face is operable to abut the rear edge face of the blade when the server blade is received into the carrier.

Hipp et al. disclose the instant claimed invention except for the specific of the blade server being enclosed in an enclosure.

Collins et al. disclose a system including a carrier enclosure (14, figure 1), wherein the carrier enclosure has at least one blade enclosure (10) with two opposing side faces, a front edge face, a rear edge face, an upper edge face and a lower edge

face (figure 1); wherein the blade enclosure includes at least one ventilation opening on the front; wherein the blade enclosure is configured to slideably mount into a carrier (figure 1); wherein the blade enclosure includes at least one connection (16) accessible externally to the blade enclosure and located on the rear edge face (figure 1); and wherein the at least one server blade receiving location of the carrier enclosure is configured to receive the server blade.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the blade enclosure design of Collins et al. to cover the server blade of Hipp et al., for the purpose of protecting the components thereon the printed circuit board.

Gallagher et al. disclose an enclosure (figure 12b) having a front panel and a rear panel, wherein the enclosure includes at least one ventilation opening on each of the front and rear edge faces to permit a flow of cooling air through the enclosure between the front and rear edge faces.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the enclosure design of Gallagher et al. instead of the enclosure of Collins et al. to enclosure the server blade of Hipps et al., for the purpose of protecting and dissipating heat generated from all components mounted on the printed circuit board.

Regarding claim 73, as modified, Hipps et al. disclose the power supply connected to the midplane is operable to supply direct current (DC), the at least one

switch (40, 42, figure 1) is operable to distribute information signals; and the at least one service processor (32) is operable to distribute system management signals.

Regarding claim 74, Hipps et al., as modified, disclose wherein the midplane carries at least one conductive path interconnecting at least one carrier connector for carrying power, information signals, or system management signals (figures 8-9).

Regarding claim 77, Hipps et al., as modified, disclose wherein locations for a plurality of power supplies (280, figure 1) and a plurality of combined switch (40, 48) and service processor modules are located at the midplane rear face.

Regarding claim 79, Hipps et al., as modified, disclose wherein the carrier comprises at least one server blade receiving location with an opening in the midplane front face and at least one server blade receiving location with an opening in the midplane rear face for receiving a field replaceable module (figures 11-12); and wherein the midplane includes at least connection plane connector (figure 1) for each server blade receiving location and at least one conductive path for interconnecting the at least one connection plane connector.

Regarding claims 82-85, Hipps et al., as modified, further disclose the carrier comprising at least one support module receiving location configured to receive a field replaceable switch (40, 48, figure 12) or a field replaceable processor (32, figure 12).

Regarding claim 86, Hipps et al., as modified, disclose wherein the at least one server blade receiving location comprises a plurality of server blade receiving locations, wherein each server blade receiving locations of the plurality of server blade locations is configured to receive the server blade (figures 11-12).

Regarding claim 87, Hipps et al. disclose the instant claimed invention except for the blade server being enclosed in the electromagnetic shielding enclosure.

Gallagher et al. disclose the enclosure making by metal, therefore, this enclosure has function to provide electromagnetic shielding.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use metal for making the enclosure of Gallagher et al., cooperated with the system of Hipps et al., as modified, for the purpose of shielding electromagnetic waves leaking from the server blade.

Regarding claim 88, Hipps et al., as modified, disclose wherein at least one of the server blade receiving locations includes at least one guide (figure 1) for guiding the server blade into the server blade receiving location.

Regarding claim 89, Hipps et al., as modified, disclose wherein the midplane is a passive component.

Regarding claim 91, Hipps et al., as modified, further disclose at least one indicator (LED, 104, figure 2) mounted thereon the server blade.

Regarding claim 92, Hipps et al., as modified, disclose the carrier is configured as a rack mountable (figure 13).

Regarding claim 93, Hipps et al., as modified, disclose the system comprising fixings (figure 13) for mounting the carrier in a racking system.

Regarding claim 94, Hipps et al., as modified, disclose wherein the blade enclosure has a narrow elongate form.

Art Unit: 2841

Regarding claim 96, Hipps et al. disclose the instant claimed invention except for the midplane having at least one ventilation opening.

Gallagher et al. disclose a midplane including an opening (covering by a fan) for ventilating airflow (figure 12b).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the midplane design of Gallagher et al. in Hipps et al., as modified, for the purpose of creating a flow of cooling air in the carrier enclosure.

Regarding claim 99, Hipps et al., as modified, disclose a door (262) being formed of plastic.

Hipps et al., disclose the instant claimed invention except for the guide being formed of plastic.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the guide of Hipps et al., as modified, for the purpose of providing flexibility of guides and enabling assembly when the server blade is inserted into the carrier enclosure.

3. Claim 97 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hipps et al., as modified, as applied to claim 72 above, and further in view of Hilbert et al. [US 5,127,851].

Regarding claim 97, Hipps et al., as modified, disclose the instant claimed invention except for the enclosure having a triangular cross section shape.

Art Unit: 2841

Hilbert et al. disclose an electronic device (figure 1) having at least one enclosure (14), wherein the enclosure has a triangular cross section shape.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the enclosure design of Hilbert et al. in Hipps et al., as modified, for the purpose of creating space for air circulating in the carrier enclosure.

Response to Arguments

4. Applicant's arguments with respect to claims 72-77 and 79, 82-100 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2841

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

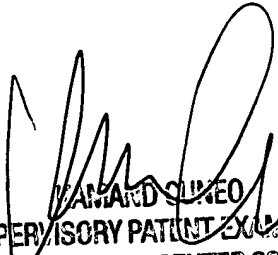
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung S. Bui whose telephone number is (571) 272-2102. The examiner can normally be reached on Monday-Friday 8:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

7/10/06

Hung Bui
Art Unit 2841


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800